

3-14-02
PB
PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Kouta KITAMURA, et al.

Appln. No.: Not Yet Assigned

Confirmation No.: Not Yet Assigned

Group Art Unit: Not yet Assigned

Filed: January 16, 2002

Examiner: Not Yet Assigned

For: ULTRASONIC-WELDING APPARATUS, OPTICAL SENSOR AND ROTATION
SENSOR FOR THE ULTRASONIC-WELDING APPARATUS

PRELIMINARY AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

Prior to examination, please amend the above-identified application as follows:

IN THE SPECIFICATION:

Please insert the following new paragraphs on page 9 after the fifth full paragraph;

FIG. 11 illustrates an optical sensor for an ultrasonic-welding apparatus.

FIGS. 12A-12C illustrate the swivel stage 34 of the ultrasonic-welding apparatus, with
Fig 12A being a perspective view, Fig 12B a front view, and Fig 12C a rear side view.

FIGS. 13 is a pattern diagram showing the change of the light emitting range and the light
receiving range of the laser light of the transmission-type laser sensor device 30, and the relation
between the disk tool 80 and the light-reviewing image Ia and Ib affected by the disk tool 80,
when the connecting part 33 is rotated around the vertical axis A by the swivel stage 34.

FIG 14 illustrates the light receiving image affected by the disk tool 80.